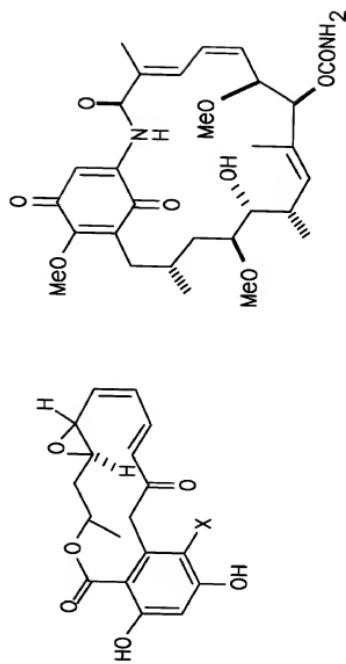


FIG. 1

 $X=Cl$  Radicicol (1) $X=H$  Monocillin I (2)

Geldanamycin (3)

FIG. 2

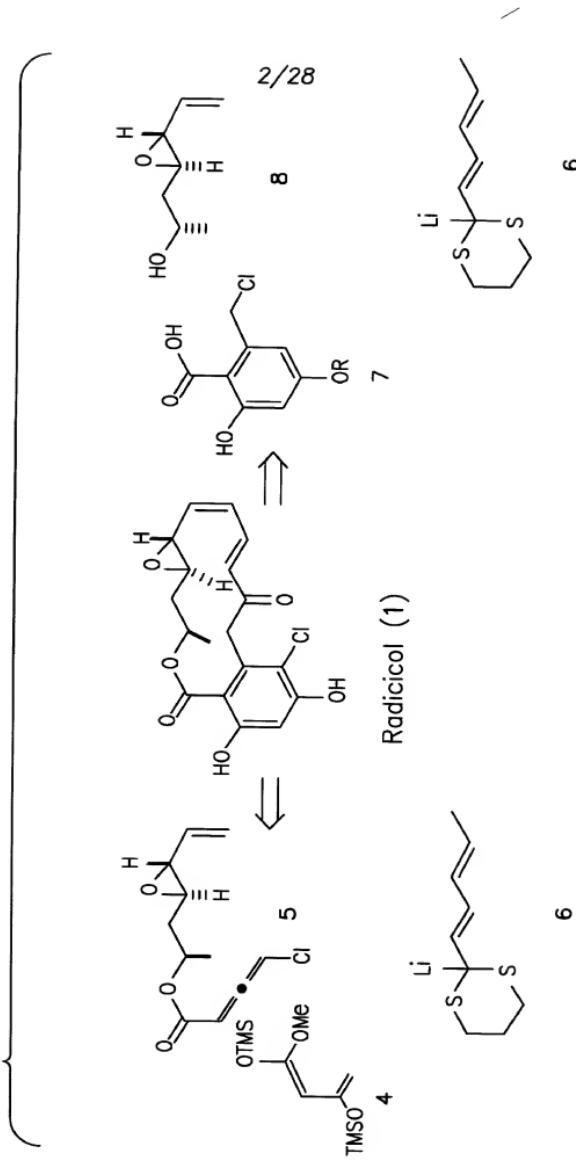
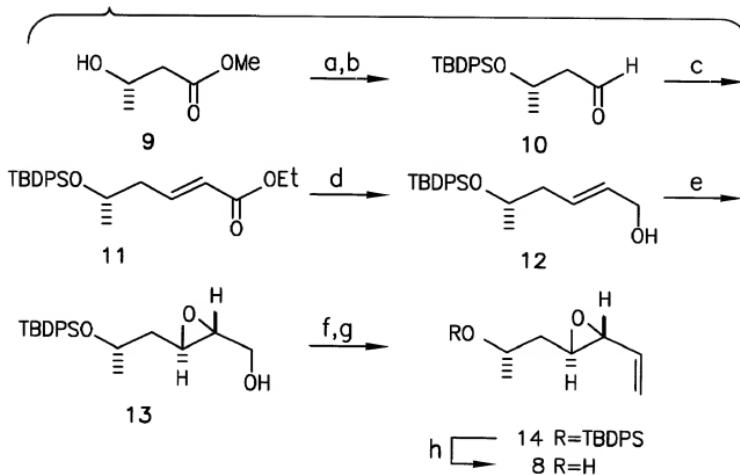


FIG. 3

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(a) TBDPSCl, imid., >95%; (b) DIBAL-H, -78 °C, 92%;  
 (c) LiCl, DIPEA  $(\text{EtO}_2\text{P}(\text{O})\text{CH}_2\text{CO}_2\text{Et})$ , 95%;  
 (d) DIBAL-H, -20 °C, 96%; (e) (+)-DET,  $\text{Ti}(\text{O}i\text{Pr})_4$ , TBHP, 90%, >95% ee;  
 (f)  $\text{SO}_3^*$ pyridine,  $\text{Et}_3\text{N}$ , DMSO, 90%;  
 (g)  $\text{PH}_3\text{PCH}_3\text{Br}$ , NaHMDS, 0 °C, 82%; (h) TBAF, 89%.

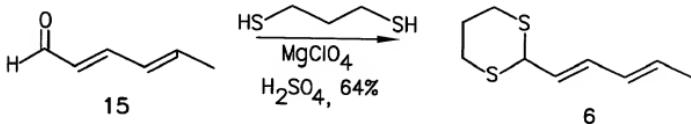
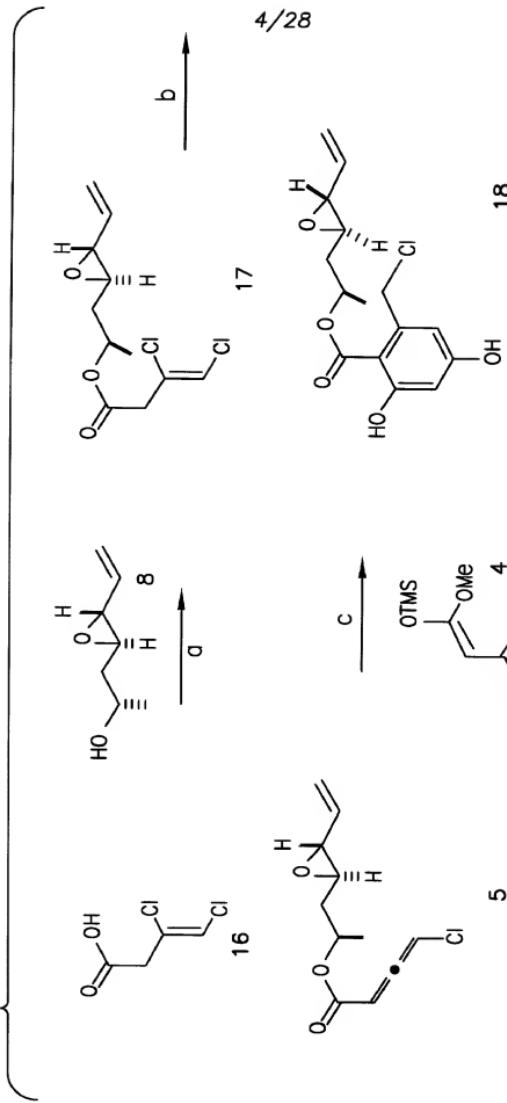
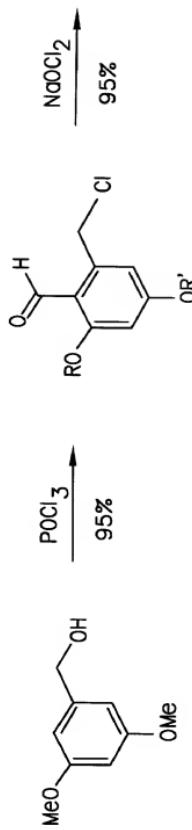


FIG. 4



(a) DEAD,  $\text{PPh}_3$ , 70%; (b.)  $\text{iPr}_2\text{NEt}$ , 70%; (c.) 50% (4:1)

FIG. 5



BB<sub>3</sub>, 85% 19 R=Me, R'=Me  
 TBDPSCl, 95% 20 R=H, R'=H  
 21 R=H, R'=TBDPSCl

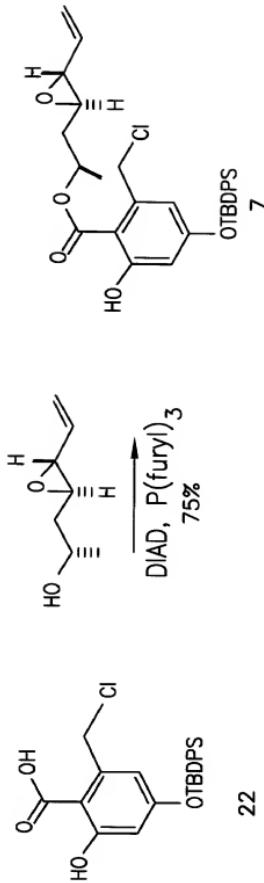


FIG. 6

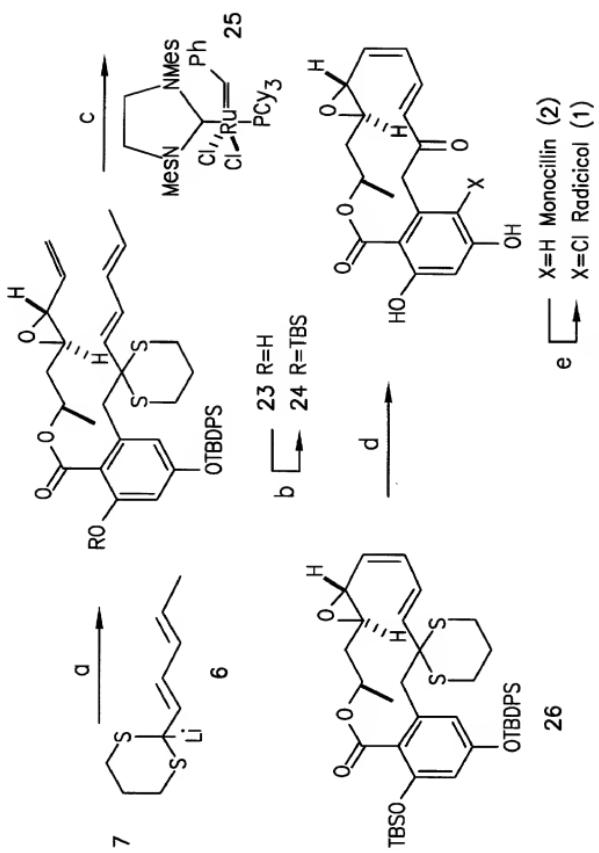


FIG. 7

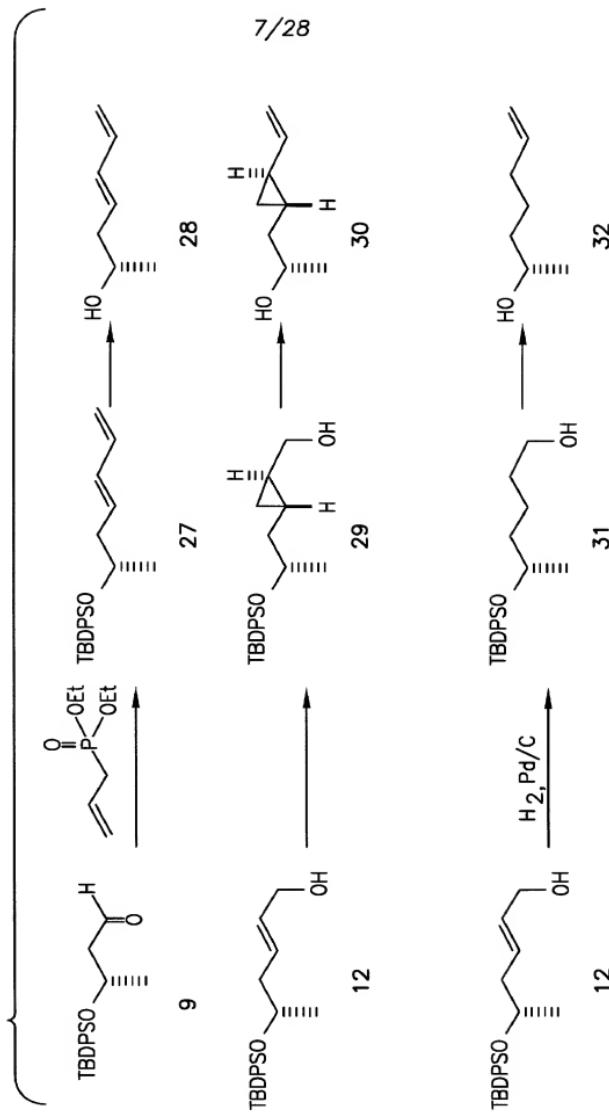
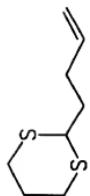


FIG. 8

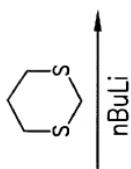
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33



*n*BuLi

FIG. 9

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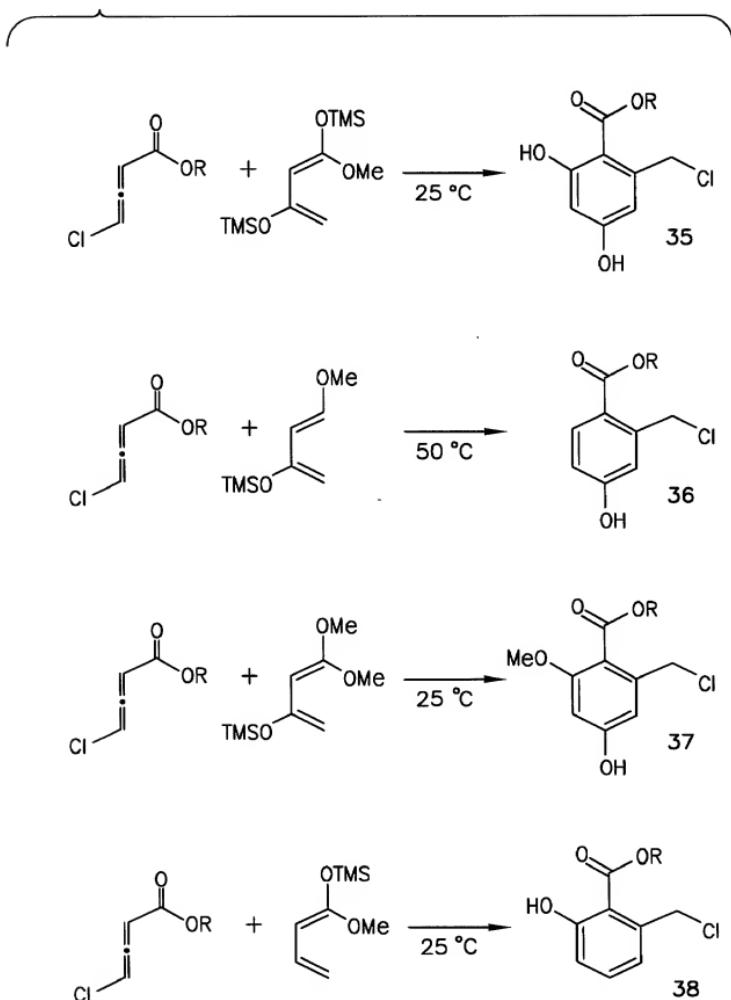


FIG. 10

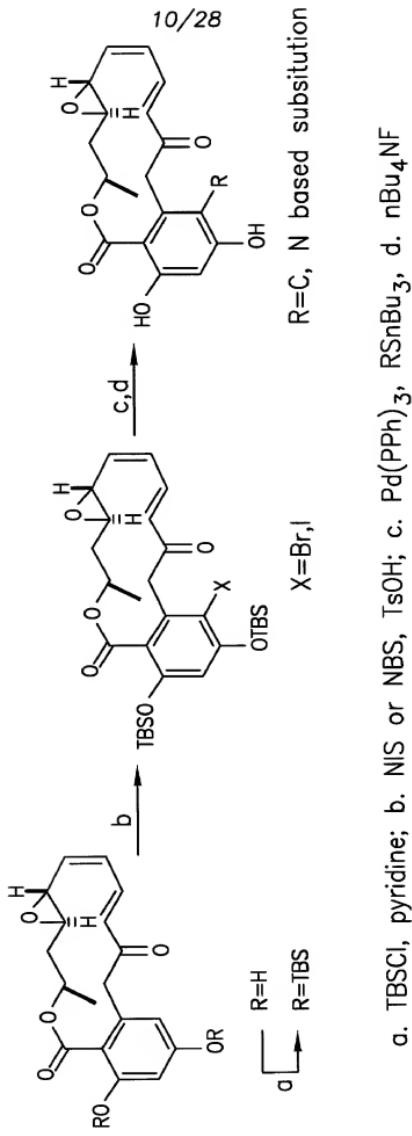
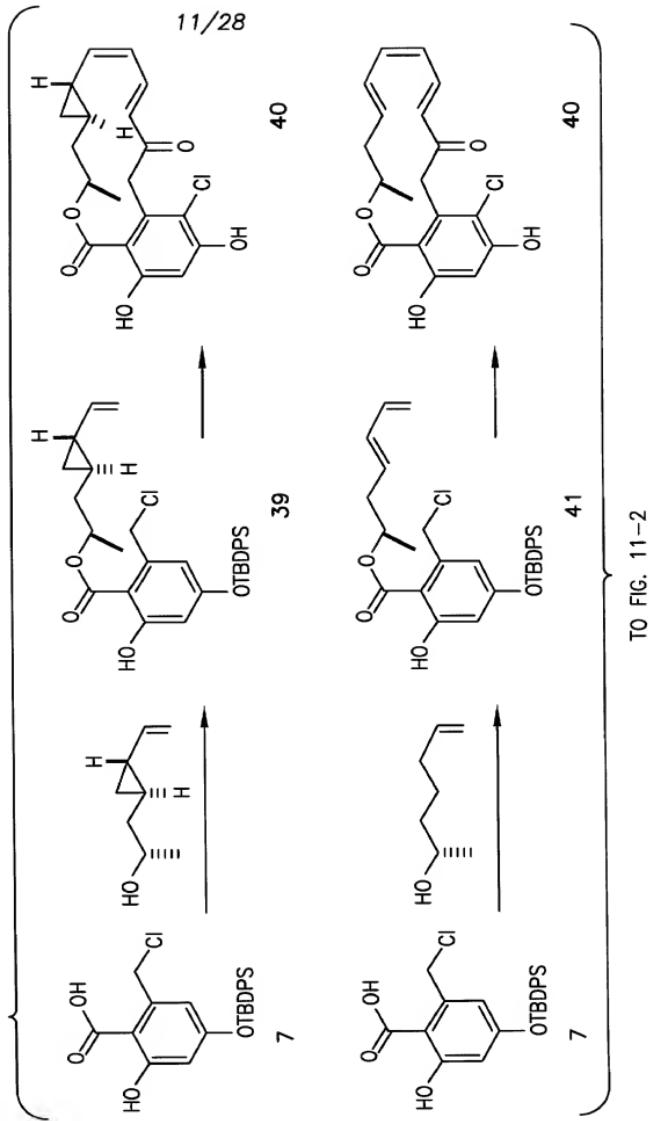
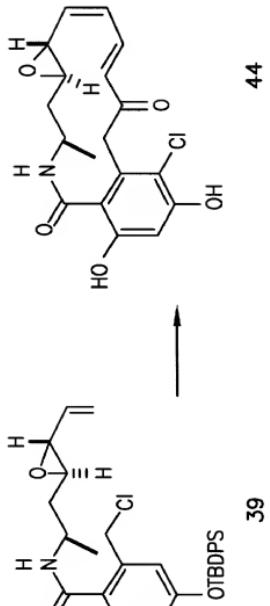
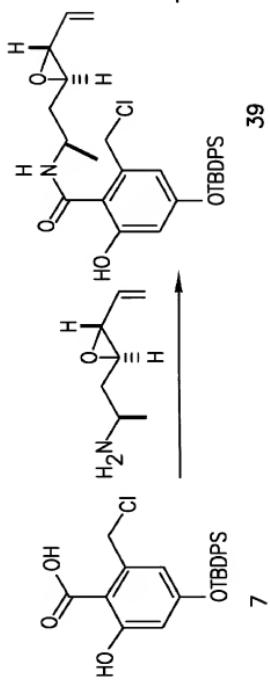


FIG. 11-1

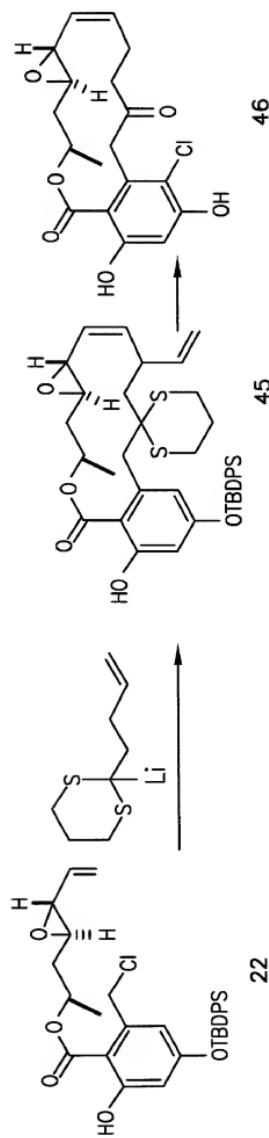


FROM FIG. 11-1

FIG. 11-2

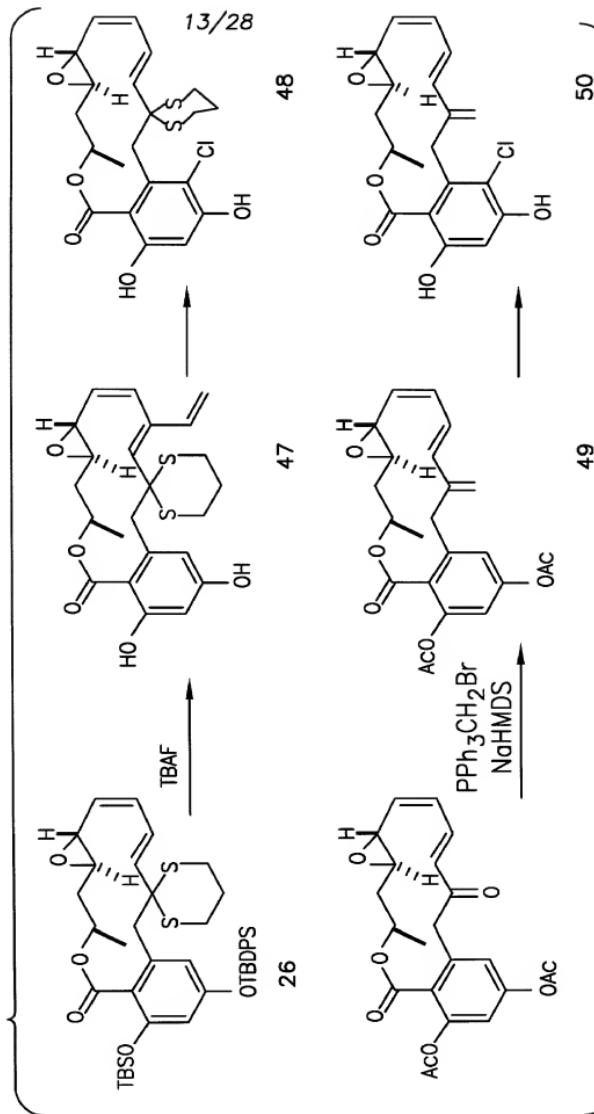


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FIG. 12-1



FROM FIG. 12-1

FIG. 12-2

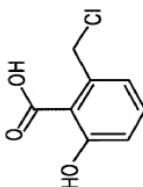
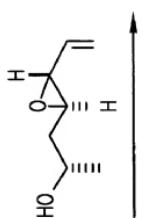
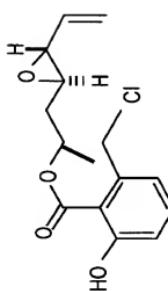
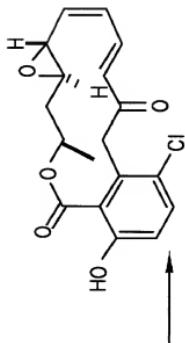
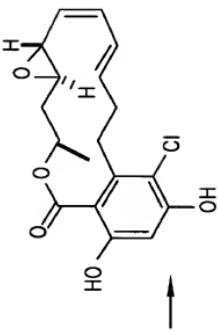
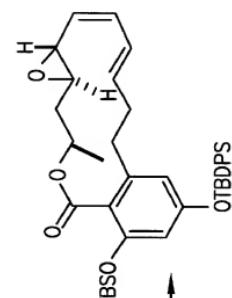
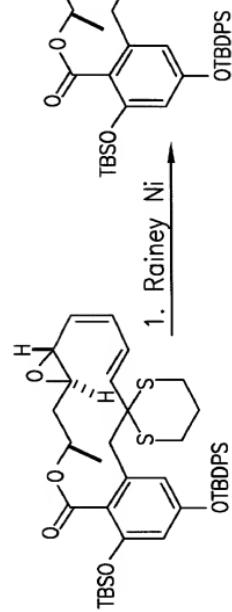
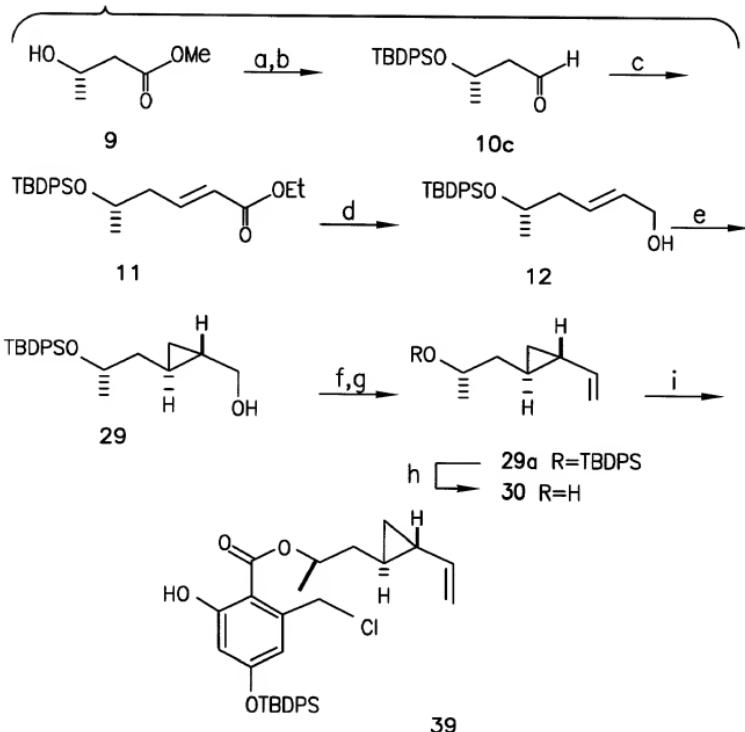


FIG. 13

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<sup>a</sup> (a) TBDPSCl, imid., >95%; (b) DIBAL-H, -78 °C, 92%;  
 (c) LiCl, DIPEA (EtO)<sub>2</sub>P(O)CH<sub>2</sub>CO<sub>2</sub>Et, 95%; (d) DIBAL-H  
 -20 °C, 96%; (e) (+)-tetramethyltartaric acid diamide-BBu,  
 Et<sub>2</sub>Zn, CH<sub>2</sub>I<sub>2</sub>, 9 >95% ee; (f) SO<sub>3</sub>\*pyridine, Et<sub>3</sub>N,  
 DMSO, 90%; (g) Ph<sub>3</sub>PCH<sub>2</sub>NaHMDS,  
 0 °C, 82%; (h) TBAF, 89%;  
 (i) 7, P(furyl)<sub>3</sub>, DIA benzene, 60%

FIG. 14

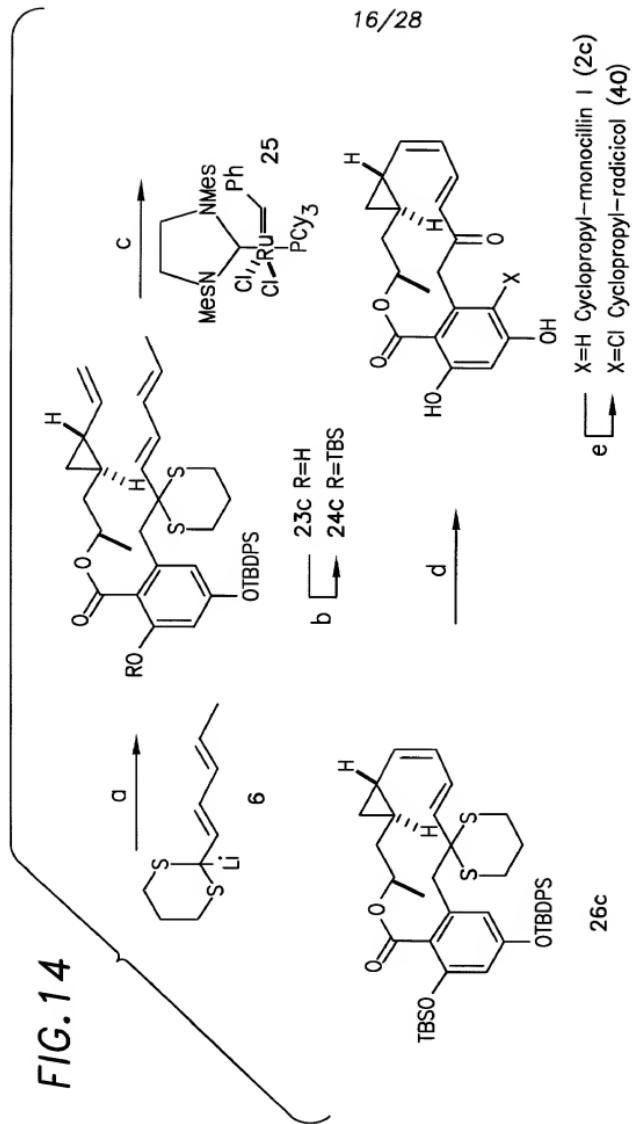
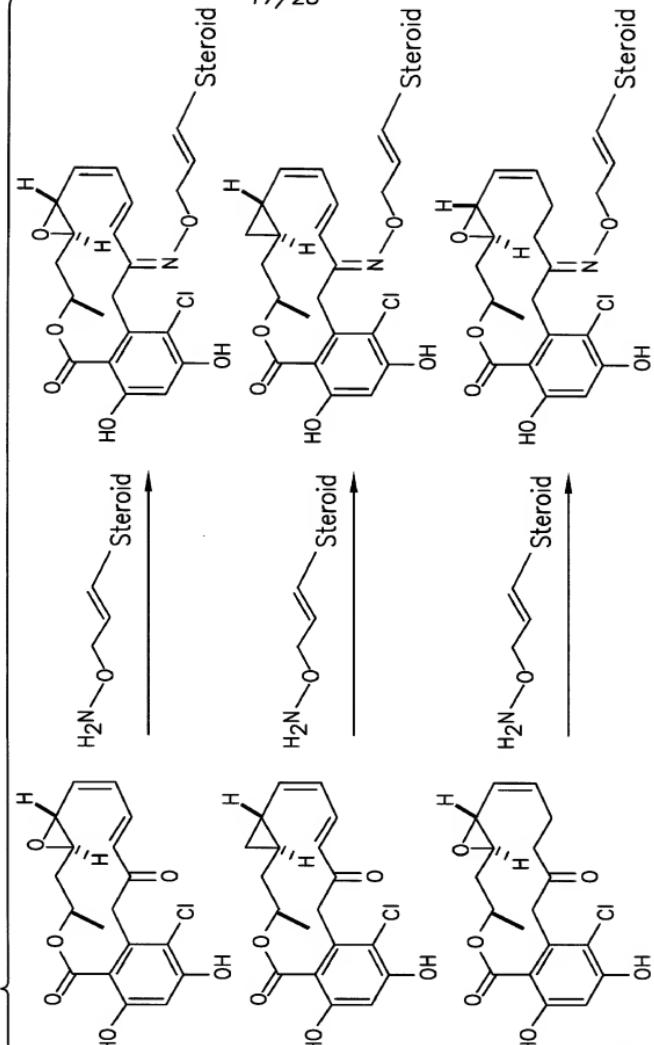


FIG. 15-1

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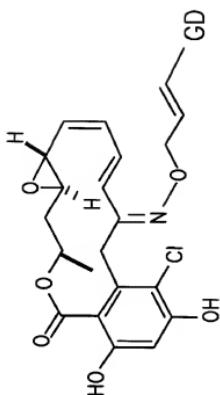
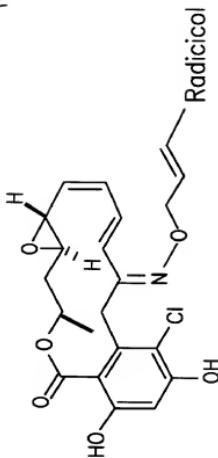
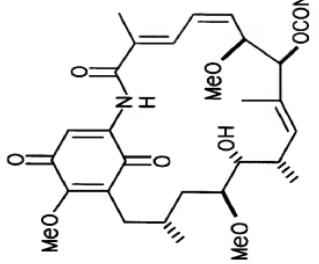
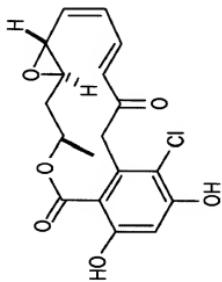
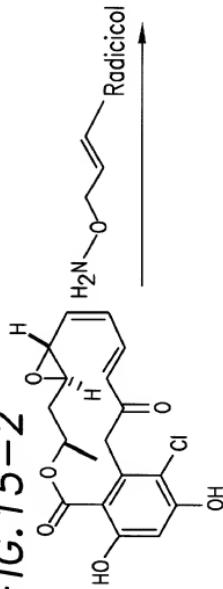
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TO FIG. 15-2



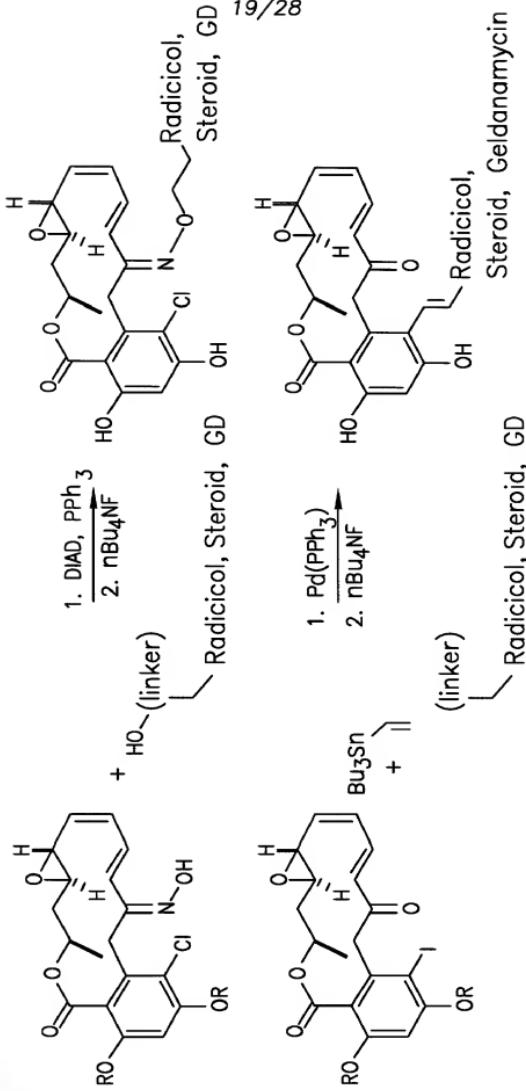
FROM FIG. 15-1

FIG. 15-2



GD=Geldanamycin

FIG. 16-1



TO FIG. 16-2

FROM FIG. 16-1

FIG. 16-2

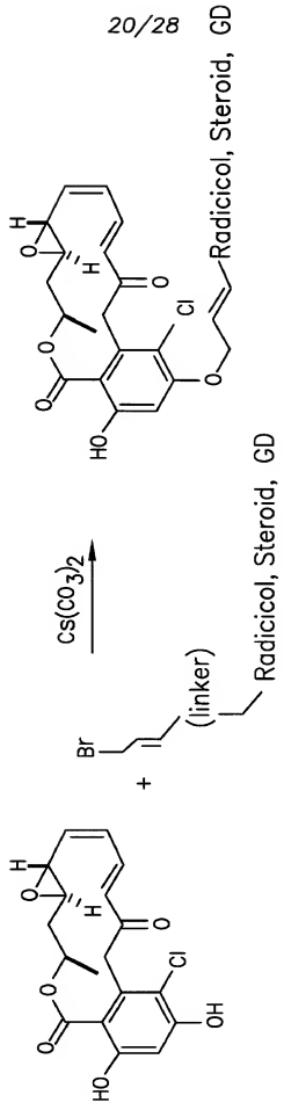
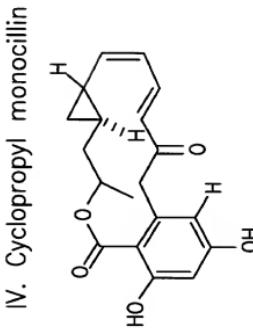
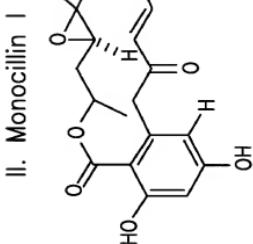
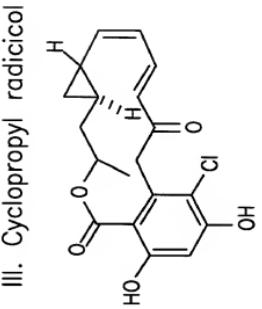
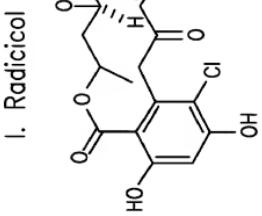


FIG. 17-1

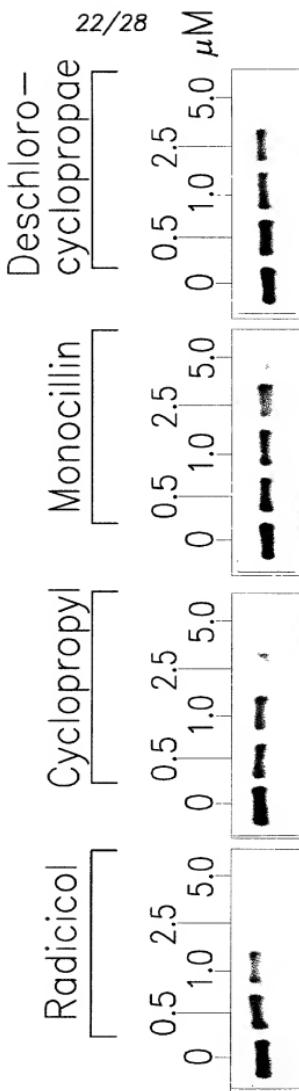


899-900

FROM FIG. 17-1

FIG. 17-2

## MCF7 Cells Treated with Radicicol and Analogues

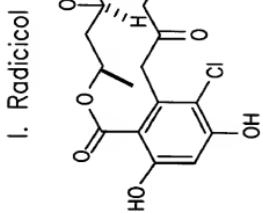


HER2

TO FIG. 17-3

FIG. 17-3

FROM FIG. 17-2



V. Dimethyl Monocillin I

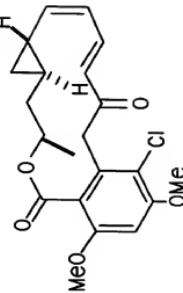
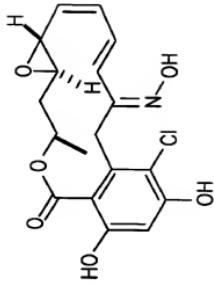
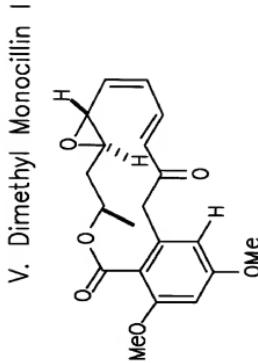
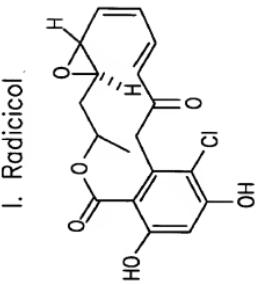
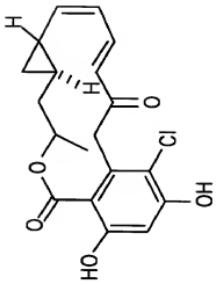


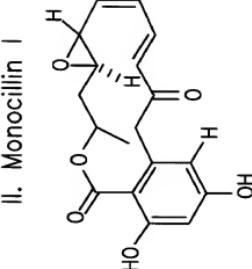
FIG. 18-1



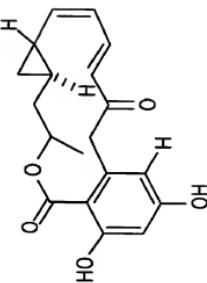
## I. Radicical



### III. Cyclopropyl radicicol



## II. Monocillin I



#### IV. Cyclopropyl monocillin

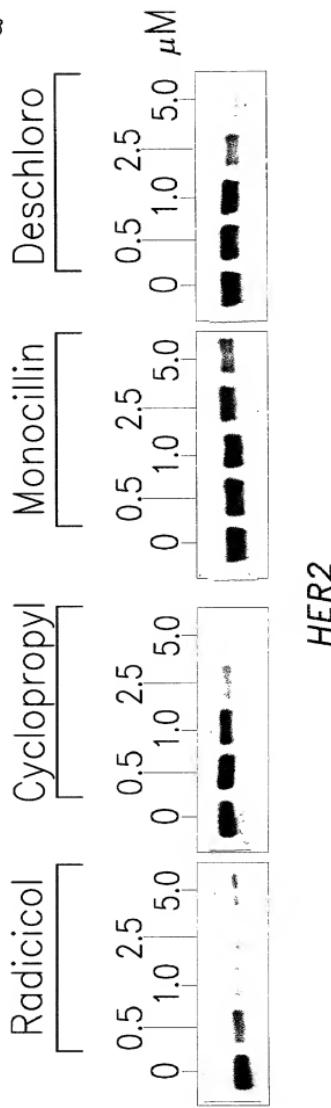
TO FIG. 18-2

FROM FIG. 18-1

**FIG. 18-2**

*BT474 Cells Treated with Novel Radicicols (24hrs.)*

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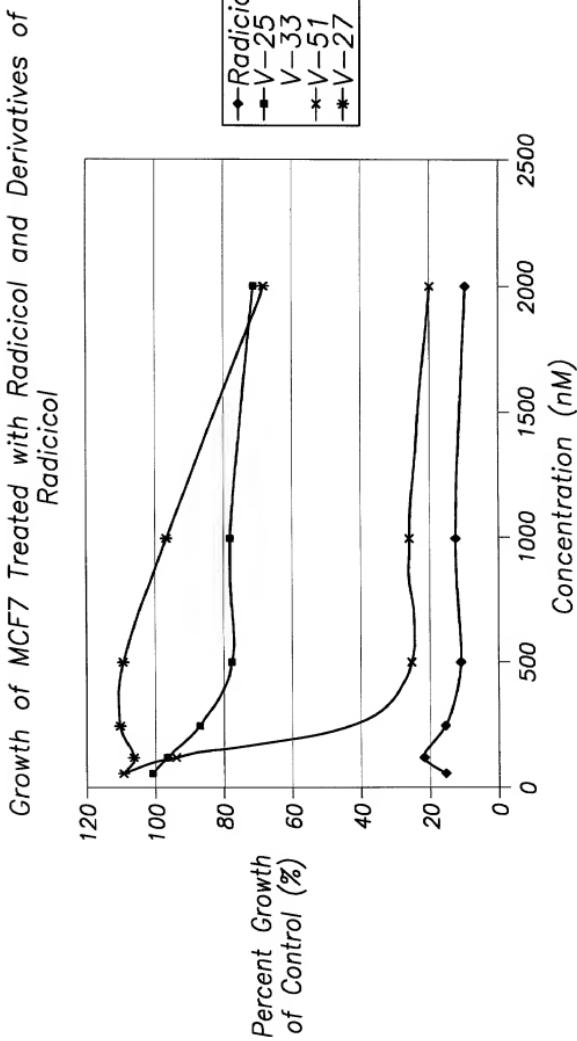


FIG. 19

FIG. 20

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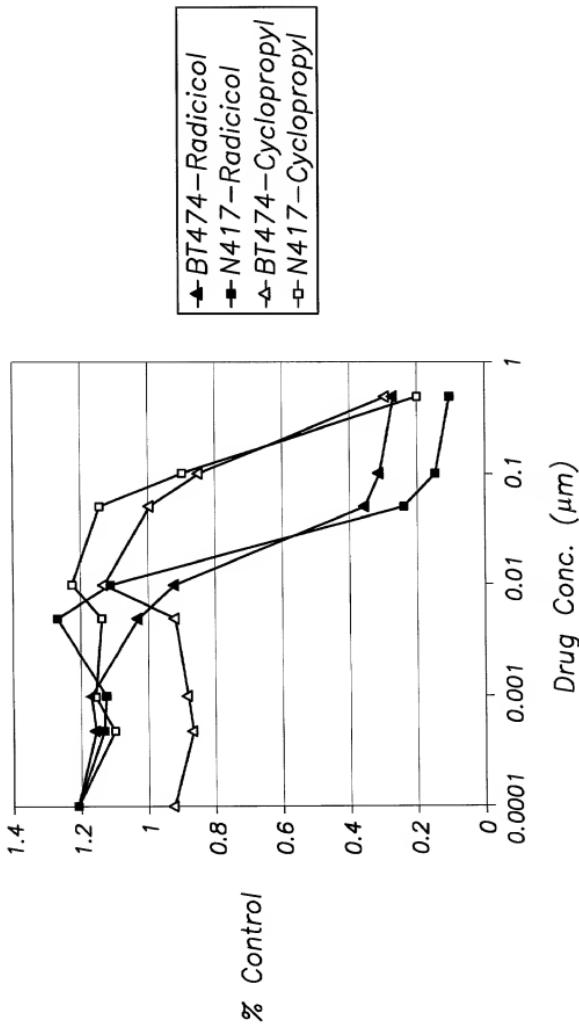


FIG. 21

